

AMENDMENTS TO THE SPECIFICATION

Please delete the paragraphs starting at page 4, line 22 through page 9, line 23, and replace with the following paragraphs:

To achieve the objects, ~~in accordance with the invention of claim 1,~~ there is provided an electronic device including a shielding conductor to be united with a chip part, characterized in that an upper surface of the chip part is coated with the shielding conductor, the shielding conductor includes a ceiling plate section covering the chip part and side plate sections which are formed to be united with the ceiling plate section and to be at a position lower than the ceiling plate section and which are arranged on both sides in a horizontal direction of the chip part, side plates do not exist in both side ends in a front-rear direction of the shielding conductor, and the side plate sections are electrically connected via a plurality of connecting means to a ground layer of a mounting substrate.

In accordance with the invention ~~of claim 2,~~ there is provided an electronic device including a chip part in which the chip part is mounted on a surface of a mounting substrate, an upper surface of the chip part is coated with a shielding conductor to be united with the chip part, and the shielding conductor is electrically connected to a ground layer of the mounting substrate, characterized in that the shielding conductor includes a ceiling plate section covering the chip part and side plate sections which are formed to be united with the ceiling plate section and to be at a position lower than the ceiling plate section and which are arranged on both sides in a horizontal direction of the chip part, and openings are formed in both side ends in a front-rear direction of the shielding conductor to open both sides in a front-rear direction of the chip part, and the side plate sections of the shielding conductor are electrically connected via a plurality of connecting means in the front-rear direction to the ground layer of the mounting substrate.

Furthermore, in accordance with the invention ~~of claim 3,~~ there is provided an electronic device including a chip part in which the chip part is mounted on a surface of a mounting substrate, an upper surface of the chip part is coated with a shielding conductor to be united with the chip part, and the shielding conductor is electrically connected to a ground layer of the mounting substrate, characterized in that the shielding conductor includes a ceiling plate section covering the chip part and side plate sections which are formed to be united with the ceiling plate

section and to be at a position lower than the ceiling plate section and which are arranged on both sides in a horizontal direction of the chip part, and both end sides in a front-rear direction of the shielding conductor project from both side ends of the chip part, and an electromagnetic wave absorber is disposed between at least from the both side ends in a front-rear direction of the chip part to the both side ends in a front-rear direction of the shielding conductor, and the side plate sections of the shielding conductor are electrically connected via a plurality of connecting means in the front-rear direction to the ground layer of the mounting substrate.

Furthermore, in accordance with the invention of ~~claim 4~~, there is provided an electronic device including a chip part ~~in accordance with one of claims 1 to 3~~, characterized in that the chip part includes a two-terminal chip part.

Furthermore, in accordance with the invention of ~~claim 5~~, there is provided an electronic device including a chip part ~~in accordance with one of claims 1 to 4~~, characterized in that in the shielding conductor, the shielding conductor width W is selected to have a size larger than an area in which terminals of the chip part exist, by at least twice a harmonic mean of height H of the ceiling plate section and length L of the opening in the horizontal direction of the ceiling plate section.

Furthermore, in accordance with the invention of ~~claim 6~~, there is provided an electronic device including a chip part ~~in accordance with one of claims 1 to 5~~, characterized in that in the shielding conductor, end sections of the opening of the shielding conductor are of a size larger than an area in which terminals of the chip part exist, by at least length L of the opening in the horizontal direction of the ceiling plate section.

Furthermore, in accordance with the invention of ~~claim 7~~, there is provided an electronic device including a chip part ~~in accordance with one of claims 1 to 6~~, characterized in that the connecting means used are at least four in number.

Furthermore, in accordance with the invention of ~~claim 8~~, there is provided an electronic device including a chip part ~~in accordance with one of claims 1 to 7~~, characterized in that a hole section is formed in the ceiling plate section of the shielding conductor to expose the chip part.

Furthermore, in accordance with the invention of ~~claim 9~~, there is provided an electronic device including a chip part ~~in accordance with one of claims 1 to 8~~, characterized in that a spring substance having elasticity is used as the shielding conductor.

Furthermore, in accordance with the invention of ~~claim 10~~, there is provided an electronic

device including a chip part ~~in accordance with one of claims 1 to 9~~, characterized in that shape memory metal having a characteristic of a spring is used as the shielding conductor, a hole section is formed in the shape memory metal to expose the chip part, and the chip part is pushed by the characteristic of a spring of end sections of the hole section.

Furthermore, in accordance with the invention ~~of claim 11~~, there is provided an electronic device including a chip part ~~in accordance with claim 1~~, characterized in that a shielding conductor also serving as a cathode conductor is used in place of the shielding conductor and the upper surface, side surfaces, and a part of surfaces of the chip part are covered by the shielding conductor also serving as a cathode conductor.

Furthermore, in accordance with the invention ~~of claim 12~~, there is provided an electronic device including a chip part ~~in accordance with one of claims 1 to 11~~, characterized in that a bump or a conductor having elasticity is used as the connecting means.

Furthermore, in accordance with the invention ~~of claim 13~~, there is provided an electronic device including a chip part ~~in accordance with one of claims 1 to 12~~, characterized in that an array-shaped chip part is used in place of the chip part and the array-shaped chip part includes a plurality of two-terminal chip parts integrated in a front-rear direction.

Furthermore, in accordance with the invention ~~of claim 14~~, there is provided an electronic device including a chip part ~~in accordance with claim 13~~, characterized in that two electrodes are formed on a mounting surface of the two-terminal chip part and both of the electrodes are connected to surface layer electric wiring formed in the horizontal direction.

Furthermore, in accordance with the invention ~~of claim 15~~, there is provided an electronic device including a chip part ~~in accordance with claim 11~~, characterized in that on a mounting surface of each of a plurality of two-terminal chip parts, only one of the electrodes is formed.

Furthermore, in accordance with the invention ~~of claim 16~~, there is provided an electronic device including a chip part ~~in accordance with claim 15~~, characterized in that the one of the electrode is connected to surface layer electric wiring formed in the horizontal direction and an optical waveguide is arranged in the horizontal direction in the mounting substrate below the array-shaped chip.

Furthermore, in accordance with the invention ~~of claim 17~~, there is provided a method of manufacturing an electronic device including a chip part in which the chip part is mounted on a surface of a mounting substrate, an upper surface of the chip part is coated with a shielding

conductor, and the shielding conductor is electrically connected to a ground layer of the mounting substrate, characterized by comprising a step of assembling the chip part with the shielding conductor into a unit by using a shielding conductor including a ceiling plate section covering the chip part and side plate sections which are formed to be united with the ceiling plate section and to be at a position lower than the ceiling plate section and which are arranged on both sides in a horizontal direction of the chip part and by coating an upper surface of the chip part with the ceiling plate section and a step of using a mounting substrate in which a ground layer is formed, arranging on the mounting substrate the shielding conductor assembled with the chip part into a unit, mounting the chip part on a surface of the mounting substrate, and electrically connecting the shielding conductor to the ground layer at the same time.

Furthermore, in accordance with the invention of ~~claim 18~~, there is provided a method of manufacturing an electronic device including a chip part in which the chip part is mounted on a surface of a mounting substrate, an upper surface of the chip part is coated with a shielding conductor, and the shielding conductor is electrically connected to a ground layer of the mounting substrate, characterized by comprising a step of using a mounting substrate in which a ground layer is formed, arranging the chip part on the mounting substrate, and mounting the chip part on a surface of the mounting substrate and a step of using a shielding conductor including a ceiling plate section covering the chip part and side plate sections which are formed to be united with the ceiling plate section and to be at a position lower than the ceiling plate section and which are arranged on both sides in a horizontal direction of the chip part, arranging the shielding conductor on the mounting substrate, electrically connecting the shielding conductor to the ground layer, and covering an upper surface of the chip part with the ceiling plate section.

Furthermore, in accordance with the invention of ~~claim 19~~, there is provided a method of manufacturing an electronic device including a chip part ~~in accordance with claim 17 or 18~~, characterized in that a plurality of connecting means are used when the shielding conductor is electrically connected to the ground layer.

Please delete the paragraph starting at page 11, line 10, and replace with:

In this connection, numeral 1 indicates a chip part. Numeral 2 is a cathode. Numeral 3 is a shielding conductor. Numeral 4 is a ceiling plate section. Numeral 5 is a side plate

section. Numerals 5A and 21A are flat planes. Numerals 6 and 6A are anode electrodes. Numerals 7 and 7A are cathode electrodes. Numerals 8 and 23 are openings. Numeral 9 is a light emitting section. Numeral 10 is a mounting substrate. Numeral 11 is a ground conductor pattern. Numeral 12 is a ground layer. Numeral 13 is a via hole. Numeral 14 is a land pattern. Numeral 15 is an optical waveguide. ~~[[FIGS.]]~~ Numerals 16A, 16B, 26, 26A, and 26B are surface layer electric wiring. Numeral 17 is a shielding bump. Numeric 18 is a signal bump. Numeric 19 is a gap. Numeral 20 is a hole section. Numeral 21 is a shielding conductor also serving as a cathode conductor. Numeral 22 is solder resist. Numeral 24 is a conductor having elasticity. Numeral 25 is an array-shaped chip part. Numeral 27 is an optical waveguide.

Please delete the paragraph starting at page 13, line 8, and replace with:

The chip part 1 including a VCSEL is, for example, about 0.4 mm ~~[[□]]~~ square and about 0.2 mm thick, and the light emitting section 9 is formed on a substantially central section of the chip part 1. Additionally, the anode electrode 6 and the cathode electrode 7 are about 0.08 mm in size and both electrodes 6 and 7 are arranged to be apart from the light emitting section 9 by a distance of about 0.125 mm. The chip part 1 configures a two-terminal chip part in which the anode electrode 6 and the cathode electrode 7 are formed as described above, and a current path is formed in the horizontal direction in which both electrodes 6 and 7 are linked with each other.

Please delete the paragraph starting at page 22, line 19, and replace with:

Additionally, an electromagnetic wave absorbing substance may be disposed in a range R from the chip part 1 to the opening end of the shielding conductor 3. The substance is one selected from a group including substances using ohmic loss, substances using dielectric loss, and substances using magnetic loss. That is, there can be used, for example, powder of carbon, ferromagnetic ceramics, epoxy resin, ferrite, permalloy, sendust, stainless steel, silicon steel, or iron-based amorphous alloy. Or, it is also possible that a metallic layer such as a nickel plate layer or a chromium plate later having high resistivity is formed on a

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surface of the shielding conductor, or depressions and projections are formed on the surface of the shielding conductor to increase resistivity.